

# SEQUENCE LISTING

<110> Benning, Christoph

Sanda, Sherrie

Yu, Bin

<120> Compositions and Methods for the Synthesis and Subsequent Modification of Uridine-5-Diphosphosulfoquinovose (UDP-SQ)

<130> MSU-04769

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<170> PatentIn version 3.0

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                                     Met Ala His
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Leu Leu Ser Ala Ser Cys Pro Ser Val Ile Ser Leu Ser Ser Ser Ser
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Lys Lys Pro Arg Lys Ser Cys Val Phe Arg Ala Thr Ala Val Pro Ile	
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acc caa caa gca cca ccc gaa aca tct acc aat aac tca tcc tct aaa	418
Thr Gln Gln Ala Pro Pro Glu Thr Ser Thr Asn Asn Ser Ser Ser Lys	
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Pro Lys Arg Val Met Val Ile Gly Gly Asp Gly Tyr Cys Gly Trp Ala	
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Thr Ala Leu His Leu Ser Lys Lys Asn Tyr Glu Val Cys Ile Val Asp	
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Phe Leu Ala Glu Ser Phe Lys Ser Phe Glu Pro Asp Ser Val Val His	
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Phe Gly Glu Gln Arg Ser Ala Pro Tyr Ser Met Ile Asp Arg Ser Arg	
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Thr Met Gly Glu Tyr Gly Thr Pro Asn Ile Asp Ile Glu Glu Gly Tyr	
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caa gct agc tcc ttt tat cat ctt agc aaa gtt cat gat tgc cac aac Gln Ala Ser Ser Phe Tyr His Leu Ser Lys Val His Asp Ser His Asn 260 265 270 275	994
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Phe Gln Glu Lys Lys Pro Arg Lys Ser Cys Val Phe Arg Ala Thr Ala  
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Val Pro Ile Thr Gln Gln Ala Pro Pro Glu Thr Ser Thr Asn Asn Ser  
65 70 75 80

Ser Ser Lys Pro Lys Arg Val Met Val Ile Gly Gly Asp Gly Tyr Cys  
85 90 95

Gly Trp Ala Thr Ala Leu His Leu Ser Lys Lys Asn Tyr Glu Val Cys  
100 105 110

Ile Val Asp Asn Leu Val Arg Arg Leu Phe Asp His Gln Leu Gly Leu  
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Glu Ser Leu Thr Pro Ile Ala Ser Ile His Asp Arg Ile Ser Arg Trp  
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Lys Ala Leu Thr Gly Lys Ser Ile Glu Leu Tyr Val Gly Asp Ile Cys  
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Asp Phe Glu Phe Leu Ala Glu Ser Phe Lys Ser Phe Glu Pro Asp Ser  
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Val Val His Phe Gly Glu Gln Arg Ser Ala Pro Tyr Ser Met Ile Asp  
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Arg Ser Arg Ala Val Tyr Thr Gln His Asn Asn Val Ile Gly Thr Leu  
 195 200 205  
 Asn Val Leu Phe Ala Ile Lys Glu Phe Gly Glu Glu Cys His Leu Val  
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 Lys Leu Gly Thr Met Gly Glu Tyr Gly Thr Pro Asn Ile Asp Ile Glu  
 225 230 235 240  
 Glu Gly Tyr Ile Thr Ile Thr His Asn Gly Arg Thr Asp Thr Leu Pro  
 245 250 255  
 Tyr Pro Lys Gln Ala Ser Ser Phe Tyr His Leu Ser Lys Val His Asp  
 260 265 270  
 Ser His Asn Ile Ala Phe Thr Cys Lys Ala Trp Gly Ile Arg Ala Thr  
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 Met His Glu Glu Leu Arg Asn Arg Leu Asp Tyr Asp Ala Val Phe Gly  
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 Thr Ala Leu Asn Arg Phe Cys Val Gln Ala Ala Val Gly His Pro Leu  
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 Gly Glu Phe Arg Val Phe Asn Gln Phe Thr Glu Gln Phe Ser Val Asn  
 370 375 380  
 Glu Leu Ala Ser Leu Val Thr Lys Ala Gly Ser Lys Leu Gly Leu Asp  
 385 390 395 400  
 Val Lys Lys Met Thr Val Pro Asn Pro Arg Val Glu Ala Glu Glu His  
 405 410 415  
 Tyr Tyr Asn Ala Lys His Thr Lys Leu Met Glu Leu Gly Leu Glu Pro  
 420 425 430  
 His Tyr Leu Ser Asp Ser Leu Leu Asp Ser Leu Leu Asn Phe Ala Val  
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caagaaacgg	gcgggcagcc	gattagcttt	gtcaatctcg	acttagcggc	tgattacgat	240
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cgcgccgccc	cctattcaat	gaagagtgca	tggcataagc	gcttcacggg	caataacaac	360
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Pro	Ile	Ala	Thr	Ile	Glu	Arg	Arg	Leu	Lys	Ala	Trp	Gln	Glu	Thr	Gly		
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65					70					75					80		
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Phe	Ala	Glu	Gln	Arg	Ala	Ala	Pro	Tyr	Ser	Met	Lys	Ser	Ala	Trp	His		
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Lys	Arg	Phe	Thr	Val	Asn	Asn	Asn	Val	Asn	Ala	Thr	His	Asn	Leu	Leu		
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Cys	Ala	Cys	Val	Asp	Val	Gly	Leu	Lys	Ser	His	Ile	Val	His	Leu	Gly		
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			180					185					190				
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 Glu Thr Tyr Gln Val Lys Asp Leu Ala Glu Lys Val Ala Ala Leu Thr  
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 Gly Ala Glu Ile Ala Tyr Leu Pro Asn Pro Arg Lys Glu Ala Leu Glu  
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 Asn Asp Leu Ile Val Asp Asn Arg Cys Leu Ile Asp Leu Gly Leu Asn  
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a6  
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